WHIRRAKEE

October 1994 Vol. 15 No. 9

Registered by Australia Post. Publication No. VBH4462

MONTHLY NEWSLETTER OF THE BENDIGO FIELD NATURALISTS CLUB

Bendigo Field Naturalists Club Inc.

Address for correspondence: PO Box 396, Bendigo 3550

Office Bearers for 1994 - 1995

President	Rob Moors	Mandurang South Rd. Sedgwick	39 6254
Senior Vice President	Bill Holsworth	13 Nabilla Crs. Bendigo	43 4063
Junior Vice President	John Burtonclay	Fadersons Lane, Mandurang	39 5710
Secretary	Jane Cleary	24 Goynes Rd. Epsom	48 4396
Assistant Secretary	Lyn Hamilton	3 Park Ave, Golden Square	47 8884
Treasurer	Glenise Moors	Mandurang South Rd. Sedgwick	39 6254
Membership Officer	Bob Ruddick	Markevitch Lane, Bendigo	49 3287
Excursion/syllabus organiser	Warwick Bates	40 James Street, Bendigo	41 1980
Librarian	Jane Cleary	24 Goynes Rd. Epsom	48 4396
Whirrakee contact	Tom Burton	5 Naranghi Drive, Bendigo	42 5518

Membership of the Bendigo Field Naturalists Club is open to all those interested in Natural History. The subscription rates are: Single $30; Family $35; Concession: Single $20; Family $25. *Whirrakee* subscription only is $30.

General meetings are held on the second Wednesday of each month. The venue for General meetings is the Department of Food and Agriculture (formerly DARA) Meeting Room, Epsom. Meetings start at 7:30pm and conclude with supper. The Annual Meeting is held in September.

Committee meetings are held on the third Wednesday of each month in members' homes. Members of the Committee are the Office Bearers listed above, together with the following members: W Demeo; R Orr; M Stone; A Howe; P Howden; S Beattie;

Excursions The assembly point for excursions is outside the Ministry of Education complex in Havlin Street East, Bendigo, unless otherwise specified. Full-day excursions normally commence at 10am (usually on a Sunday); half-day excursions normally commence at 2pm and may be either on a Saturday or Sunday. Full-day or half-day excursions are usually held on the weekend following the General Meeting. Campouts are held several times each year, usually coinciding with long weekends or holiday periods.

The Bendigo Field Naturalists Club has 2 active sub-groups:

Bird Observers Group: meets on the first Friday of the month, at 7:30pm. The venue for meetings is the Department of Food and Agriculture (formerly DARA) Meeting Room, Epsom.

President: Chris Tzaros
Secretary: Sally van Gent

Mammal Survey Group: meets on the fourth Wednesday of the month at 8pm in members' homes as announced in the monthly diary.

Chairman: John Burtonclay, Fadersons Lane, Mandurang (39 5710)
Secretary: David McDonald,"Mulgara", Guys Hill Road, Strathfieldsaye (39 5756)
Equipment Officer: Ian Fenselau
Vice Chairman: John Guley

Front Cover
Photographer: Jan Orr

Aboriginal well on Mt Kooyoora. The photo was taken during a Club excursion led by John Lindner in July this year.

WHIRRAKEE

Monthly Newsletter of the Bendigo Field Naturalist Club
Vol. 15, No. 9, October 1994

Whirrakee takes its name from the Whirrakee Wattle (*Acacia williamsonii*) which is virtually endemic to the Bendigo region

CONTENT

Item	Contributor	Page
From the Mailbag	Elaine Mathison	3
Bird of the Night Discussion (1) Masked Lapwing	Bill Flentje	4
(2) Australian Hobby	Bill Flentje	5
The Rainbow Bird	Jack McErlain	6
Observations during a Queensland Holiday	Warwick Bates	6
Members' Letters	Rod Orr	8
Useful Wild Plants of the Bendigo District (Part 1)	Warwick Bates	13

Authors are responsible for the accuracy of the information they use and also for any opinions expressed in their articles.
Contributions will be included as soon as possible after they are received, although articles received after the monthly General Meeting will probably be too late for inclusion in the next issue of *Whirrakee*.

Editor's note

Liberation came on the night of Friday 2nd of September. After the election of office bearers for 1995, I no longer held an office in the Bird Observers Group. No more having to push myself out of the family home on a Friday night, when all I wanted to do most months was a good imitation of a vegetable. Mine was not an onerous position - just taking the minutes - but it meant a commitment to going out one week in four. Every year the filling of offices in the Club is a hassle, yet every year, somehow, perhaps miraculously, the offices are filled. The miracle, it seems to me, is the unselfishness of those members who commit themselves and take positions that they are not quite sure that they can manage, despite the time they will have to spend on them, for the good of the Club and the furtherance of its aims. These people deserve our thanks and support in whatever way we can give it.

Articles in *Whirrakee* may be reproduced, but permission should be obtained from the Bendigo Field Naturalists Club, and acknowledgment should be given to the author and the Club. Back issues are available at a cost of 80 cents each. Complete sets are available at $ 8.00 for each volume. The above prices do not include postage.

From the Mailbag
Author: Elaine Mathison

Each month the Club receives a number of newsletters and magazines: some by subscription and some in exchange for *Whirrakee*. These are available from the Club librarian at our meetings.

THE BIRD OBSERVER (BOCA) No.743, July 1994
'Nesting in Hollows' by Ellen McCulloch points out that 'a decrease in hollow-bearing trees in Australia will be one of the most important factors to overcome in bird conservation over the next decades'. Details are given of species which need hollows, and species which are known to have bred in nest-boxes.
* BOCA is asking for information on the success and failures of nest boxes and other attempts to provide alternative hollows.
'Pink Cockatoo' by Zoe Wilson describes this beautiful bird, and gives details of its preferred habitat. Breeding and nesting information is also included and food sources outlined.
'Birds, Hollows and Honeybees' by David McDonald reports on the invasion of nest boxes by feral honeybees and birds. The report is based on interim survey results from the Spring Gully Reservoir study undertaken by our own BFNC Mammal Survey Group (see September's *Whirrakee* , ed.)

THE BIRD OBSERVER (BOCA) No.744, August 1994
'Birds in Southern Tasmania' by Lawrence Fisher reports on the gradual increase in bird species observed in a developing garden. As the trees and shrubs grow more birds are staying around the property rather than passing through.
'A Grebe Experience' by Pauline Bartels outlines the writer's good fortune in being able to watch a pair of Australian Grebes nesting on a farm dam in the mallee. Several visits were made over a period of 5-6 weeks enabling observations of the chicks' progress from hatching to 4 weeks of age.
'Coot Comment' by Molly Brown gives details of the writer's observations of these 'common, ordinary, ubiquitous and successful birds' and why she has chosen to write about them. Their 'purposeful, adaptable, audible, agitated and enterprising' behaviours are described.

PARK WATCH (VNPA) No. 178, September 1994
'A Vision for Victoria's Parks' is an edited version of the address given by Doug Humann, VPNA Director, to the DCNR National Parks Service Workshop held in Marysville earlier this year. The VNPA goals were outlined as follows:
- the land and sea base of the reserve system becomes comprehensive
- an integrated system of conservation protection on public and private land
- best practice management in conservation reserves.

'Nature's Notes: Food for Thought' by Malcom Calder describes three instances of feeding wild birds for the entertainment this provides and expresses concern at the potentially serious problems which may arise in the management of wildlife in popular areas where such activities take place.
'History Notes: Mallee Roots' by Tom Griffiths gives a brief history of Victoria's north-west since European settlement. Details are given of the first explorers and pastoral occupiers and their lack of success. Later clearing and development was encouraged by the government, leading to more intensive settlement and the onset of the serious problems in this region today.
* This issue of Park Watch also contains the VNPA Annual Report.

Other publications recently received include:
Environment Victoria News: July and August.
Biolinks (Biological Diversity): June
Field Nats News (FNCV): August
Conservation News (ACF): August

Bendigo Bird Group - Bird of the Night Discussion (1)
Author: Bill Flentje

Subject: Masked Lapwing, (Spur-winged Plover) - *Vanellus miles*

Calls: Loud, rapid, harsh, staccato call, when alarmed, tapering to a lower tone, and slower as it comes in to land. Calls are often made when disturbed, at night as well as in the daytime. Softer trills are made while running when displaying. Babies make cheeping calls to make their whereabouts known as they move about soon after hatching.

Appearance: Generally olive-brown colour on the back and top-side of the wings. The body underneath is white, as are the forward wing linings, whereas the flight feathers below are black. The tail and rump are white, with a black band almost at the end of the tail. A yellow spur is located on the shoulder of the wing. The Masked Lapwing is represented in Southern Australia by the race *novaehollandiae*, long known as the Spur-winged Plover. In this race, the yellow facial wattle, though extensive, is smaller than in the nominate race, and the black plumage of the crown extends back along the neck, then extends as a partial black band down the shoulders of the body. The bill is yellow, the eyes are white and the medium tall legs are reddish purple.

Food: Consists of worms, grasshoppers, crickets and other insects and invertebrates found in grasslands, and sometimes seeds.

Habitat: In the Bendigo District, they inhabit grasslands and open woodlands throughout the district, including open paddocks extended grassed areas, recreation areas in city and suburbs.

Breeding: May occur in this region after normal rains in Winter and Spring. In suitable conditions, more than one brood may be successfully raised. The nest is a small depression in the ground, lined with grass or other ground vegetation. Around Bendigo, nests have been built on the roof of a poultry shed, on the lawn of Strath-haven elderly homes, on islands between parking lots at Sizzlers Restaurant, and also at the University. Both parents assist in building the nest, incubating the eggs and feeding the babies. Four eggs are usually laid. The eggs are usually olive-green with darker green or brown spots and blotches. The babies leave the nest soon after hatching. Some parents defend the nest and eggs, then the young, very aggressively, and are liable to attack humans who come too close; other birds rely on the very well camouflaged eggs and babies for their protection.

General: Spur-winged Plovers in the Bendigo area move around frequently during the night, and their calls can often be heard. The earliest nesting to be observed appears to have been in late June, but nesting is rarely observed by the end of October or before. When the babies are hatched, the parents guide them away from the nest, keeping them under cover of grass tussocks, or low ground vegetation for protection. The babies utter "cheeps" regularly, so that the parents returning from food excursions are able to find them. In flight, they flap their wings comparatively slowly, but their flight is not slow. In areas inclined to be swampy, they often build the nest on slightly raised ground if available.

Bendigo Bird Group - Bird of the Night Discussion (2)
Author: Bill Flentje

Subject: Australian Hobby - *Falco longipennis*, also known as Little Falcon

Calls: The alarm call is a series of sharp, quick staccato notes, repeated. The female also has a quivering scream when begging food from the male, and the male has a drawn-out cry when bringing prey to the nest, and chattering may be heard near the nest.

Appearance: The male is the smaller, being 31cm long and the female 35cm long. The wing span is 75-90cm. The plumage of both sexes is similar. Mainly the upper plumage is bluey-grey in colour, the upper wing primaries being dark brown with white bars. The head is mainly dark brown, with white forehead and eyebrows, white throat and white band extending almost to the back of the neck. The cheeks are also dark brown, and the upper tail is brown with lighter bars across. The plumage underneath is mainly of chestnut colour with close dark bars under the wings and tail.

Food: Mostly preys on birds the size of pipits, starlings, etc., but also takes insects in flight.

Breeding: In Southern Australia it usually nests between August and October. Courting behaviour involves high-speed chasing and calling. It usually takes over a nest previously used by other birds such as Magpies, another raptor or corvid, sometimes uses a hollow in a tree, and occasionally may build its own nest of slender sticks and twigs. Clutch size varies from two to four, but usually three. The nest is usually situated in a high location. The nest may be used again in successive years. The eggs hatch in about 34 days, and the young leave the nest in about 35 days. The first plumage of the babies is white down.

Habitat: They appear to prefer open timbered country, especially near creeks and waterways, but are frequently sighted in city and suburban areas of Bendigo.

General: Their flight is very swift, and they hunt very fiercely, but may occasionally be seen to hover. They often perch at a high point watching for prey which may be attacked swiftly in a steep dive, or in a level chase.
They are greatly feared by small to medium sized birds, and their presence revealed by general alarm calls. Ducks and Galahs are known to have been attacked and killed by Little Falcons. Occasionally the prey is hunted by a pair of Little Falcons acting in concert. Food is sometimes passed from one bird to the other in flight, but at other times, the bird sitting on the nest, may fly to a favourite perch to receive the food. They have been observed on several occasions to hunt among a flock of starlings coming in to roost in the evening. Technically, the female of the genus *Falco* is referred to as the falcon and the male bird is referred to as the tiercel.

The Rainbow Bird

Author: Jack McErlain

In the latter part of July 1994, I spent some time photographing and observing the Rainbow Bird (Bee Eater) *Merops ornatus* on Queensland's Capricorn Coast, north of Yeppoon.
At this time of the year they can be observed courting or bonding previously established relationships. They are often seen snuggling in pairs. It was too difficult to see where they roost at night but the Rainbow Bird's daily activities did not start until about 10am when the courting pair could be seen sitting on a perch that gave a good view of the sky and surrounds.
This perch was usually a leafless twig but quite often was electrical power lines. The perch ranged in height from the highest point in the area to as low as one metre. The low roost appeared to be most popular on windy days possibly because the bees and insects were avoiding the wind.
The Rainbow Bird has extremely short legs so they must take off and land into the wind. When on the perch, the only way they can turn around is to take off and land again in the other direction. As they occasionally caught insects in long grass, the short legs were of no use to move or jump so they would land with their wings spread to give them an upward thrust to fly again.
Each bird would fly out singly and try to catch bees or other large insects in mid-air. On the return flight, the perched partner would call (prrrd prrrd) with its tail fanning from side to side as if trilling for food, and would keep this up until the hunting partner landed. The hunter would then vigorously beat the life out of the insect and offer it to his mate.
One day, I counted about 20 pairs of Rainbow Birds operating in the area that was within the range of my observation point. At this time there is no indication that they are nesting, yet this is an area that I have observed nests in previous years.

Observations made on a Trip to Queensland during August 1994

Author: Warwick Bates

My family and I went for five weeks on a holiday to coastal Queensland, and I kept a few notes on things which interested me; they may be of interest to others.
The trip was taken on during one of the worst droughts in Australian history, and conditions were certainly worse generally the further north we went. We went as far as Airlie Beach.

Charcoal Tank

On the way up, we stopped for a cuppa at the Charcoal Tank Reserve near West Wyalong NSW. This is in Mallee, Ironbark country just south of the town on the Newell Highway. What caught my attention here was the abundance of fruiting Quandong trees. The dry kernels were so thick on the ground I collected some and cracked them open to try the nut inside. I found them to be acceptable, but my son Andrew said they tasted like "Deep Heat" ointment. Oh, well, kids today are hard to please!

Noosa Heads

We stopped the first night at Moree, then went on to Noosa Heads in Queensland where we stayed for two weeks. The pace of development in this area has to be seen to be believed. They really are killing the goose. There is obvious strong opposition by locals to the rate of "progress" but it is a tough battle against money and politics. There is a highly promoted National Park right adjacent to the main shopping centre, but I spent my available time in a patch of less publicized, but no less interesting country just south of the town. This ranged from Melaleuca swamp to eucalypt country with species such as
- Flooded Gum, *E. grandis*, one of the fastest growing eucalypts,
- Tallowood *E. microcorys*
- Carbeen *E, tessellaris*.

These trees give the impression that they have all had fine wire netting wrapped around them some years earlier up to half the trunk height. Above this height the bark is smooth; below, it is all rough and in square shaped chunks.
- Queensland Brush Box *Tristania conferta* (?). This tree is well known to many as a popular street tree down south (in Bendigo too).
- Grass Tree *Xanthorroea* sp.

Bird species I observed in the area included:
- Scarlet Honeyeater *Myzomela sanguinolenta*, this species was very common
- Swamp Pheasant *Centropus phasianinus*, only saw one at Noosa but many more further north
- Brush Turkey *Alectura lathami*, one sighting at Noosa - many more further north
- Wompoo Pigeon *Megaloprepia magnifica*, two sightings and several times heard only. Saw this species in rainforest near Airlie Beach also.

We moved on to Yeppoon, on the coast, to the east of Rockhampton. While at Yeppoon, out of curiosity we went to see the "Capricorn National Resort", a Japanese owned and operated tourist destination just to the north of Yeppoon. While we were there I learned that the place was situated on 28 000 acres, much of which is still unspoiled coastal wetlands. I visited these wetlands and drove several times along the many kilometres of tastefully inconspicuous but well maintained track and was privileged to observe, among other things, a flock of many thousands of Magpie Geese. Brolgas were plentiful in small groups and pairs; and many of the usual water birds we are familiar with in Victoria were present. I was to see mobs of Magpie Geese on lagoons and water holes further north, but not in the numbers at Yeppoon. A list of the trees growing in the woodland around the wetlands includes:
- Swamp Mahogany *Tristania suaveolens*
- Quinine Bush *Ptalostigma pubescens*
- White Mahogany *Eucalyptus acmenoides*
- Peanut Tree *Sterculia quadrifida*
- Cocky Apple *Planchonia lareya*
- Scrub Cherry *Exocarpus latifolia*
- Pink Bloodwood *Eucalyptus intermedia*
- Cabbage Tree Palm *Livistonia decipiens*

When many might argue that this place is representative of a "Sell-off" by Australia to overseas interests, I was left in no doubt that these wetlands are in good hands. Perhaps this is just another face that conservation will have in the future. Entry at any time is open and free to the public, unlike the State Forests and many National Parks in Queensland.
Brush Turkeys were common around the wetlands in the woodlands.
Beach Curlew were very common around Yeppoon. I have not heard the call of a curlew since I was a teenager so I enjoyed this. The call of the Beach Curlew is identical to that of the Stone Curlew. I heard them again at Sarina Beach which was were we stayed next. Brush Turkeys came in and around the house at Sarina Beach to be fed.
From Sarina we went onto Airlie Beach. Based at Airlie Beach we visited Whitehaven Beach on Whitsunday Island and went snorkelling at Manta Ray Bay on Hooke Island, a truly memorable experience which included hand feeding hundreds of multi-coloured reef fish, and watching a 100kg Maori Wrasse at close quarters.
A half day tour of rainforest was taken while we were at Airlie Beach. If you are inexperienced in rainforest, as I am, it is advisable to go with someone who knows it well just before attempting solo exploration, as many dangers lurk for the unwary, not the least of which is the Gympi Gympi or Stinger *Dendrocnide* sp. This is a very common plant in and around rainforests. It is identified easily by its toothed large heart-shaped leaves, which if observed closely are covered in fine hairs. I have read, and am told that a chance encounter with this plant can cause maddening pain which can reccur periodically for a year or more after the event. Our guide appeared to know his stuff, and pointed out an interesting phenomenon: on tapping the trunks of the palm trees, a hollow sound was heard. This is due to the effects of the drought. Normally the trunks are full of water and don't sound hollow. The guide also made the observation that good rainforest is open under the canopy, i.e. the widely held view that rainforest is a solid tangle of vines etc. is erroneous. His theory was that in a stable (unlogged) rainforest the canopy is largely intact, and the light virtually shut out undeneath, making it almost impossible for new plants to germinate. Only when a tree falls, and a gap occurs n the canopy does the cycle of germination and renewal begin again.
We observed some of the oldest strangler figs in the world, elkhorns, basket ferns and many other including some not yet identified.

We had a very enjoyable stay up north and are already looking forward to returning.

Members' Letters
This will be an occasional series. Readers might be interested in these sort of letters written by members, in the name of the Club or as private individuals. These two contributions are by Rod Orr who is fast becoming famous for his letter writing in Bendigo and beyond.

Mr Kim McGough, Project Manager,
Bendigo Highway Entrances & Boulevards Study
Loddon-Campaspe Regional Planning Authority
261 Hargreaves Street
Bendigo 3550

Dear Sir,

I would like to make the following comments on the First Stage of the Bendigo Highway Entrances & Boulevards Study Project:

1 The choice of trees as indicated on Plan A and Plan B, highlights several problems:

(a) An error of identification spoils the intention to continue plantings of Red Ironbarks in areas where some Ironbarks now grow. The locally indigenous species is *Eucalyptus tricarpa*, but the species named in the Key on Plan A, is *Eucalyptus sideroxylon* which is not naturally found in this region - it comes from NSW or the far north-eastern parts of Victoria. It is easily distinguished from our local Red Ironbark (which is really only superficially similar) which occurs throughout north-central Victoria. This indicates to me that the quality of botanical advice which underpins this stage of the study was inadequate for the task and also leads me to wonder about the level of botanical understanding which was available to guide the selection of other roadside plantings.

Plantings of Ironbarks in the past in the City of Greater Bendigo have been mixtures of the two Ironbark species - this should have been recognised and the details of these intended new plantings of Ironbarks should have been clarified instead of confused by the Study. Perhaps this seems an insignificant quibble - once it is realised, however, that the local Ironbark, *Eucalyptus tricarpa*, is a Winter flowering tree and thus provides an extremely important nectar source for a wide variety of honeyeaters and other locally indigenous birds at this time of the year when nectar is in very short supply, then the importance of distinguishing between these 2 tree species should be more easily understood. The similar Ironbark species, *Eucalyptus sideroxylon*, which doesn't occur naturally here, is a Spring to Summer flowering eucalypt.

(b) Lemon-scented Gum and Spotted Gum are alien species to this region and are often seen as specimen trees planted in parks and gardens. To suggest their large scale use along Bendigo's highway entrances either demonstrates a lack of knowledge concerning which species of eucalypt actually occur here naturally, or a lack of awareness of the benefits of growing locally indigenous eucalypts as street trees, and of the 'costs' of growing introduced eucalypts in this region.

It is no longer good enough to pretend that growing just any native Australian plant will create any sort of uniquely Australian environment. Planting a wide variety of Australian native plants would be an appropriate strategy for a botanical garden or a park but could only demonstrate something of the diversity and variety of Australian plants and nothing which is uniquely Bendigo's. It is a way of homogenising rather than separating out the unique vegetation features of a place within its own region of Australia and would indeed be counter-productive in view of your stated aim of 'improving the visual (?) appearance of highway entrances and boulevards' and to 'create highway entry experiences(?) of a scale and quality suited to the lifestyle and heritage of Bendigo'.

Failure to recognise important differences in the regional nature of naturally occurring vegetation would lead to Bendigo being replanted with selections from the same list of exotic species of trees that every other town and city in Victoria (Australia?) uses to line its streets - WA Flowering Gum; Lemon-scented Gum; Spotted Gum; Smooth-bark Apple; various Melaleuca species; various Callistemon species (all alien to this central Victorian environment - exotic Australian natives!), and various exotic European and American trees, evergreen and deciduous (Elms, Oaks, Plane Trees, Prunus species, Pepper-corn Trees, Pines etc), which doesn't seem to be a sensible way to attempt to enhance our uniqueness.

(c) I've heard the comment that the locally occurring Ironbark is an unsuitable street tree because they drop branches (which is adequately countered by the few remaining magnificent undamaged - ie 'unpruned' - specimens which survive in scattered locations around Bendigo), yet the Plan shows Red Gum plantings replacing shrubs in the median strip through Kangaroo Flat. Now this really would be an unsafe location for this species of eucalypt - they do drop their branches and would be able to create havoc in both the exit and entrance lanes along this main road if they are ever allowed to grow old enough.

A poorer choice of a median-strip tree would be hard to imagine unless there was a wide enough median strip to provide a measure of safety! Perhaps the selection criteria used have led to this poorly considered recommendation for planting the narrow median strip of one of Bendigo's busiest entrances - was it just because Red Gums grow naturally along the roadsides in parts of this area? Why not use some of the other locally occurring small trees and shrubs to replant this median strip safely with locally indigenous native plants, at the same time enhancing the uniqueness of this part of the Bendigo environment?

There is surely no real need to be so narrowly focussed on planting trees - some recent plantings in the wider region have been much more enlightened, incorporating locally indigenous shrubs and grasses as well as appropriately selected locally indigenous trees - they should be used to guide the development of a more soundly based model for replanting Bendigo's entrances and major city streets.

Another locally occurring tree species in the Kangaroo Flat area which also grows alongside the Calder Highway, is the Yellow Gum (*Eucalyptus leucoxylon*). Left unpruned and with sufficient space in which to grow, this eucalypt develops into a beautiful specimen tree. Why was it neglected in the Plan? Is this another case of mistaken identity with the Lemon-scented Gum or the Spotted Gum being substituted in error? (I have heard Road Workers in this region mis-identify well grown specimens of Yellow Gum as Lemon-scented Gum - perhaps this is a more common misconception!). I would like to see these alien eucalypts deleted from your list and replaced with such excellent locally indigenous species as the Yellow Gum and other local eucalypts which could easily be listed for your information and used in selecting appropriate plantings for particular roadsides.

2 Why is there more value in using indigenous plantings instead of exotic trees and shrubs? The point has been made already that we should develop and enhance Bendigo's unique features by incorporating appropriately selected locally indigenous trees, shrubs, and grasses into plantings along our main entrances and major streetscapes.

There are other advantages which we should recognise and adopt as part of the Study Plan recommendations for street plantings. The following important values of using locally indigenous plantings should be recognised and incorporated in the Plan:

* Box-Ironbark Conservation - there is a wider recognition of the need to protect, conserve, and enhance Box-Ironbark vegetation (several State-wide conferences have been conducted and recent publications are available). Bendigo is located in the centre of this forest type and should show some pride in the use of Box-Ironbark species in roadside plantings rather than pandering to some vague notion of the restoration of a poorly understood historical collection of ancient exotic remnants - most of which are more properly recognised now as environmental weeds and should be controlled or eliminated, not replanted. Are we in Bendigo to be the last to recognise the value of our surrounding Box-Ironbark Forest environment? We live in the only major city in Victoria which is surrounded by this forest type - an unrecognised unique feature of Greater Bendigo (at least by the authors of this Plan).

* Roadside Conservation - the need to protect, conserve, and enhance indigenous roadside vegetation is becoming more widely recognised - Bendigo could use wisely selected roadside plantings along its entrances to achieve this aim and to contribute to the development of of a Code of good roadside management practices in the urban area. Several Workshops have been conducted in the Greater Bendigo region to increase the awareness of Professional Officers and Road Workers of the value of roadside vegetation and of the need to protect indigenous remnants of our locally occurring native plants. Until now, these courses have concentrated on the Shires which formerly administered the Rural parts of our region but perhaps these courses should also be conducted for Urban Planners and Urban Road Professional and Maintenance staff who have such an important impact on the vegetation along our highway entrances and major city streets.

* Wildlife Corridors - many areas of important habitat for remnants of our local and regional fauna are fragmented and very small. There is an urgent need in this region to connect separate areas of remnant habitat by planting corridors of locally indigenous vegetation so that whatever native fauna remains in these areas may be better protected. Roadsides are often the only remaining connecting links between widely separated areas of remnant native vegetation and should be used to enhance the survival prospects of our remnant native fauna which depend absolutely on locally indigenous vegetation.

* Habitat for locally indigenous fauna (Birds; Marsupials; Reptiles; Insects) needs to be protected, conserved, enhanced wherever possible - roadsides planted with locally indigenous species of trees, shrubs, and grasses will create better conditions for the survival of locally indigenous species of fauna - they should be used for this very important purpose and not wasted in a misguided cosmetic exercise by using plantings for their aesthetic values only.

* Replacing or regenerating degraded habitat for rare or endangered fauna (Regent Honeyeater; Painted Honeyeater; Tuan). Any bird-watcher who has lived in Bendigo for long enough, would remember seeing Regent Honeyeaters feeding in the Winter-flowering Ironbarks which used to grow along View Street. The Regent Honeyeater, which requires a heavy nectar flow from locally indigenous Ironbarks, has become so rare that it is almost never seen in Bendigo now - the Winter-flowering Ironbarks are almost as rare, having been pollarded and pruned out of existence along most of our streets, including View Street. Reversing this process of degradation of the habitat value of our street trees by replanting with winter-flowering Ironbarks really would be an attempt to build on a unique feature of this region - Bendigo's native birdlife.

* Water-wise plantings - the Council must give the lead and set good examples in their own street plantings. It's well past the time when we should have rejected deciduous European and American trees for street plantings in this important Provincial City which is situated in the dry Box-Ironbark forests of central Victoria. Plants which are locally indigenous are able to grow and thrive in the climatic and soil conditions of the region without the need for continual watering or

doses of artificial fertiliser - their advantages should be recognised and incorporated into the Plan. It's about time that we recognised the essential Biogeographic constraints of our environment and tried to learn how to live within these natural limits. Growing locally indigenous plants wherever possible is a very important step towards this goal - the City of Greater Bendigo should take the lead in this important matter.

I have many other concerns with this present statement of the Study and Plan and would welcome the opportunity to become more involved with the process. I feel that it has run off the rails and is in danger of becoming totally unrealistic within the context of Modern Bendigo (really, I think that the Plan has reached this stage already).

There is an urgent need to involve interested and concerned individuals and groups in this process rather than leaving the 'job' to landscape designers and desk-top planners who seem to have some mixture of idealised notions about the 'Essential Bendigo' and have incorporated various mis-guided notions such as spreading the weed problem caused by remnant Peppercorn Trees by planting more of them - it'll be Boxthorn; Wheel Cactus; Belladonna Lily; Tree of Heaven; Pampas Grass next, because of their supposed historical or cultural connections. I wouldn't go to extremes to exterminate all of these 'historical' plants from the Greater Bendigo region (although, in many cases, careful, continuous and costly control measures are required to prevent their spread as weeds) but the authors of this Plan shouldn't advocate including them in new plantings.

The Modern Greater Bendigo of the future shouldn't be distinguished by its main entrances and major city streets being heavily infested with weed species carried over from the Gold Rush despite their historical interest and a tenuous connection with our mining 'heritage' (of utter devastation of landscape and vegetation and the consequent wholesale destruction of locally occurring native fauna?).

There are some mining relics which are worth conserving but the weed species of the Gold Rush era are not.

Many of these issues were discussed at the General Meeting of the Bendigo Field Naturalists Club Inc. last night where it was agreed that the Committee would draft a letter which also objected to the present nature of the Study and Plan. I expect that you will receive this in due course, however, I thought that I should send you these thoughts as my individual response to the Plan, separately from the response from the Bendigo Field Naturalists Club.

Yours sincerely,

Rodney M Orr

11 August 1994

Mr Vern Robson, Acting CEO
City of Greater Bendigo
Municipal Offices
Lyttleton Terrace
Bendigo 3550

Dear Sir,

Last Saturday (August 20), when my wife and I drove back from the Whipstick State Park along Neilborough Road, we were very pleased to see that the outcome of the recent road improvements exceeded our expectations.

Almost all of the trees which had been marked for removal at various times during the planning stages of the roadworks were still standing because they had been skilfully avoided by an excellent surveying and engineering solution to the apparently conflicting concerns of improving the quality of the road surface while protecting the conservation values of the roadside vegetation.

I am sure that I can also speak for all members of the Bendigo Field Naturalists Club Inc. when I express my own delight at the outcome of this work which initially threatened to cause so much destruction of the roadside vegetation in this important area. I would like to commend Graham Thomas (Engineer), Peter Bimpson (Surveyor), Tracy Smith (Planning Officer), and Neville Hill (Supervisor of the roadworks), for their patience and flexibility in negotiating with representatives of the Bendigo Field Naturalists Club during several site inspections of this section of the road, and for their care in carrying out the work, which is clearly evident in the final result.

This was an excellent outcome in all respects. I am sure that it will feature in discussions and slide shows at Roadside Conservation Training Courses as an example which could be used as a model in establishing a Code of Best Practice for roadworks in this region. The process involved concerned members of the community, local residents, conservation interests represented by several members of the Bendigo Field Naturalists Club, officers of the Department of Conservation and Natural Resources, Shelley Cohn (Conservation Officer, Regional Conservation Strategy), David Fairbridge (Project Officer, Roadsides Conservation Committee), and staff of the Council of Greater Bendigo (Marong Office), in discussions and inspections which highlighted the issues of greatest concern and enabled us all to find the best solution to this particular problem. The staff of the Marong Office then proceeded to carry out their duties with skill and sensitivity, carefully preserving the very attractive roadside vegetation and avoiding any unnecessary disturbance during their work.

I wish to thank you and your staff in the Marong Office of the City of Greater Bendigo for your involvement in the planning and completion of these road-works so that the conservation values along this roadside through the Whipstick State Park were protected.

Yours sincerely,

Rodney M Orr

23 August 1994

Useful Wild Plants of the Bendigo District (Part 1)
Author: Warwick Bates

I am keen to start a record of what is known about useful plants, both native, and non-native which grow wild in this and neighbouring regions. I have had a lifelong interest in this subject which was heightened considerably when I had the opportunity to live and work among traditional aboriginal people in the Kimberley and Northern Territory in the 1960's. Though there has been considerable popularity due to media coverage and books written on this fascinating subject, I know that I still have much to learn and in sharing what I have experienced and recorded I hope that others will contribute to add to the store of knowledge. Much knowledge of aboriginal use of plants, especially in southern and eastern areas of Australia has been lost, or is only known of from scant early settlers' remarks, often without detail, in old diaries. Therefore any new insight gained in this area might have to rely on extrapolation and experimentation. An example of this is knowing that mulga and other acacia seeds were used extensively as food by desert aborigines, I have ground the dry seed of, among others, *Acacia pycnatha* and *Acacia baileyana* into flour which cooks up into very tasty pancakes and is also very tasty when eaten raw. A word of caution though: I (and my family) have eaten a number of kilograms of this product without any obvious ill effect, but I have seen no documentation of it even having been used as food.

I have divided up the categories of plants on the basis of their use, i.e. for
- food
- water
- fibre
- fire
- medicine
- raw material for artifact
- glue
- other

Food Plants (Native) Roots and Tubers

Yam Daisy *Microsris scapigera* also called Murnong, this plant was documented as being one of the mainstays of the diet of Victorian aborigines pre-settlement. It only occurs in areas which are not grazed and where the influence of introduced weeds has not excluded it yet. The small tuber produced just underground I have found to be very tasty, when cooked, not unlike a sweert potato. I was interested to know how the aborigines found these after the top growth died off after summer, so I marked some areas out with nails and went back when this had happened. With careful observation, a faint traceof the dry stem can often be seen months later, generally flat on the ground. I suppose also, areas where they grow prolifically would have been known, so these places would have just been dug over when required.

It is worth noting that this plant was so highly regarded by some early settlers as a food source that it was seriously considered as a potential crop. Its swift demise due largely to grazing by sheep and replacement or exclusion by exotics such as Cats Ear and Dandelion saw it forgotten. Perhaps it needs reviewing now.

Yam Daisies occur in pockets throughout the forested areas in the Bendigo region. It could easily be mistaken for Dandelion or Cats Ear, but there are two distinguishing features at least: One, the flower head on Yam Daisy is held on a drooping stem before opening, while such is not the case with the latter two weeds; two, the plumes or 'parachutes'on the dry seed of Yam Daisy are composed of broad filaments, while the seed of the similar weeds have very fine and dense clusters of hairs forming the wind-catching part of the seed.

.....to be continued

The Forgotten Forests
A Field Guide to Victoria's Box and Ironbark Country

Text by Malcom and Jane Calder
Photographs by Ian McCann

The Box-Ironbark region of Victoria extends from Wodonga in the north-east to the eastern slopes of the Grampians in central western Victoria. Over 75% of this quintessentially Australian landscape has been cleared and the remaining bush has undergone grazing, timber cutting or mining.
Despite its history of exploitation, this unique forest ecosystem is home to more than 1000 species of native plants. *The Forgotten Forest* provides an introduction to the ecological history of the Box-Ironbark region and a pictorial guide to more than 210 of its most common flowering plants. The book argues for the preservation of the best of the remaining Box-Ironbark bushland in reserves established for the primary purpose of nature conservation.
The Forgotten Forests is divided into three sections (all richly illustrated with colour photographs): An ecological and natural history of the region (landscape, climate, soil, vegetation and fauna); a guide to the six main ecological communities of the region (including information on the birds and animals typical of each community); a field guide to the region's main plants. The latter section forms the bulk of the book and features photographs and illustrations of plants accompanied by captions which provide the common, scientific and family names; a brief description; height range; and main flowering season.

Publisher: Victorian National Parks Association
Format: 210mm x 135mm; 120 pages; limp cover; full colour
Recommende Retail Price: $19.95
ISBN: 1 875 100 08 3

The Grampians in Flower

Author and Photographer: Ian McCann

The Grampians in Flower is the fourth in the Victorian National Parks Association's magnificent 'in Flower' series. The other titles cover the Alps, the Mallee and the Coast.
The Grampians region is famous for its wildflowers, attracting visitors from overseas and all over Australia. The flora is remarkable for the high number of species that do not occur naturally anywhere else. Many of the plants are colourful, large and abundant and can be seen eand enjoyed by the casual observer; others are small and hard to find and make exploring the area an exciting and rewarding experience for the wildflower enthusiast.
More than 1000 flowering plants have been recorded for the region covered in this book. Of these, 400 are illustrated in this beautiful full-colour guide.
Most of the illustrations are reproduced at life-size. As a further aid to identification the caption includes common, scientific and family names; a brief description; height range and the main flowering season.
A letter code included in the caption of each plant indicates the distribution by noting the main reserves in which it has been recorded. These reserves are shown on the map on the inside cover. The reserves for which plant listings are available are the Grampians National Park, Black Range State Park, Arapiles-Tooan State Park, and Deep Lead Flora and Fauna Reserve.

Publisher: Victorian National Parks Association
Format: 210mm x 135mm; 120 pages; limp cover; full colour.
Recommende Retail Price: $19.95
ISBN: 1 875 100 07 5

Diary

All general and Bird Observers Group meetings are held at the Department of Food and Agriculture, corner Taylor Street and Midland Highway Epsom, unless otherwise indicated.

General Meeting

Wednesday October 12, 7:30pm.
Speaker: Dale Gibbons will speak about the reptiles of the Bendigo district

Wednesday November 9, 7:30pm
Speaker: Paul Foreman will speak on native grasslands of Victoria

Bird Observers Group

October 7, 7:30pm.
Helen Aston from the Bird Observer Group Melbourne will give a talk entitled: Rivers of Sand, Channels of Clay. It is about a trip down the Hay River in the Eastern Simpson Desert through the Georgina River Channel Country of south-western Queensland
Bird of the Night: Kookaburra

Excursion

On Sunday October 16 the excursion will be to Spring Gully Reservoir to look at wildflowers. Meet at 10am at the Shakespeare Street entrance.

Peter Allen will lead an excursion on Sunday November 20 to a swamp north east of Bendigo. Meet Peter at 11am at the GPO Elmore.
Note that this excursion is run the second Sunday after the general meeting.

Supper

The usual arrangements for supper are as follows: members either bring a plate or pay $1 for supper. This small amount is used by the treasurer to reimburse members who purchase essential supper supplies.